

Range Safety Support to Program Operations

NASA and Kennedy Space Center Range Safety Managers supported eight launches this year: one from the Western Range and six from the Eastern Range, including three Shuttle launches. Additionally, the Kennedy Space Center Range Safety Manager assisted with the Missile Defense Agency's near field infrared experiment (NFIRE) satellite launch at Wallops Flight Facility, primarily providing support for distant focusing overpressure analysis.

To ensure the requirements of NPR 8715.5, *NASA Range Safety Program*, are met during pre-launch, launch, and post-launch operations, NASA Range Safety personnel work side by side with our Department of Defense counterparts in the Eastern Range or Western Range Operations Control Centers. NASA Range Safety personnel ensure any range safety related activities that could have an impact on NASA launch criteria are relayed to the NASA Safety and Program officials to ensure we fly safely and within the requirements identified in NASA safety directives.

NASA Range Safety personnel work with the supporting ranges many weeks in advance of each launch to coordinate support console positions and develop launch support documentation and safety briefings. NASA Range Safety personnel conduct briefings regarding NASA range safety operations and functions at Safety Readiness Reviews and other significant pre-launch venues. The efforts to plan, negotiate, and coordinate pre-launch and launch requirements and documentation in 2006 paid great dividends for support in 2007.

Today, NASA Range Safety receives the same documents used by the range Mission Flight Control Officer's and Safety Technical Advisors. The documents that are received from the Range include:

- Space Wing waivers and variances
- Launch Support Plan (Range Countdown Checklist)
- Mission Flight Control Officer Countdown Checklist
- Estimated Coverage Plans for instrumentation
- Flight Control Instrumentation Worksheet
- Range Safety Operations Requirements and Supplements
- General and special Mission Rules used during the launch countdown.

With timely and more concise information, a launch abort or scrub may be avoided, saving time and money. However, the most important aspect of this cooperative effort is the fact that this type of partnership is the best way to do business when it comes to ensuring public safety.

Another major effort undertaken before each launch is processing any exceptions to policy that may arise. This activity is explained in more detail in the Range Safety Launch Support Policy section. We've included an article in this section that details NASA Range Safety support to the NFIRE mission at Wallops Flight Facility.

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As we look forward to 2008, the Eastern and Western ranges will launch a total of ten expendable vehicles, including a Pegasus launch from Kwajalein Atoll. We anticipate supporting five Shuttle launches as well, so 2008 looks to be a busy year with almost double the number of launches supported in 2007.